The Concept Paper on the Virtual Centre -

the BRICS Network Centre for Materials Science and Nanotechnology

1. GENERAL

1.1. The BRICS Network Centre for Materials Science and Nanotechnology (herein after referred as "Centre") is established as the organisational support of the initiatives defined by the STI Ministers of the BRICS countries on 27 October 2015 in the 2015-2018 BRICS Work Plan for Science, Technology, and Innovation. The main objectives of the Centre are to establish cooperation in the field of Materials Science and Nanotechnology, to facilitate shared use of research equipment and/or facilities in the key areas of cooperation, and to organise conferences in the thematic areas of common interest. This follows from the Declaration of BRICS countries signed in Hangzhou at the 5th meeting of Ministers of Science, Technology, and Innovation on July 18, 2017, in Work Plan for 2015 - 2018 (article 3.1) and the Action plan of 2017 - 2018.

The proposed Centre is a non-profit academic consortium uniting and networking, on a voluntary basis, leading universities, and research organisations of BRICS countries in the fields of Materials Science and Nanotechnology.

The full name of the proposed centre in English is BRICS Network Centre for Materials Science and Nanotechnology.

The abbreviated name of the proposed Centre in English is BRICS-NCMSN.

The full name of the proposed Centre in Russian: Сетевой Центр Материаловедения и Нанотехнологий стран БРИКС.

The abbreviated name of the Centre in Russian - СЦМН БРИКС.

The full name of the Centre in Chinese: 金砖五国材料科学与纳米技术联合中心.

The abbreviated name of the Centre in Chinese: 金砖五国材料科学与纳米技术联合中心.

The full name of the Centre in Portuguese: Rede BRICS de Ciências dos Materiais e Nanotecnologia.

The abbreviated name of the Centre in Portuguese: BRICS-RCMN.

The commonly used name of the centre is BRICS Network Centre for Materials Science and Nanotechnologies hereafter referred to as BRICS-NCMSN).

1.2. The activities of BRICS-NCMSN are carried out in accordance with its Concept Paper, international regulatory instruments, constitutions as well as laws of the BRICS countries and participating member institutions.

1.3. The Lead coordinating agency of BRICS-NCMSN in each BRICS country (Focal Points), which are responsible for the organisational work in BRICS-NCMSN, are nominated by respective BRICS Ministries for Science, Technology, and Innovation of the

respective countries.

1.4. Russia, being the Lead-Coordinator of the Working Group on Materials Science and Nanotechnology, will be the Lead-coordinator of BRICS-NCMSN. In order to carry out the work of NCMSN, the Russian side proposes to establish an office located at Ural Federal University named after the first President of Russia Boris Yeltsin, (Yekaterinburg, Russia); this office is responsible for the overall coordination of BRICS-NCMSN activities. The entire expenses including development and hosting of the website etc related to day to day operations of the Office shall be met by Russia.

1.6. BRICS-NCMSN will have a logo with its name, a standard-issue template.

1.7. The working language of BRICS-NCMSN is English.

1.8. Location of the office of the BRICS-NCMSN:

- Ural Federal University, 620002, Russian Federation, Yekaterinburg, Mira Street, 19;

1.9. BRICS-NCMSN shall not bear responsibility for the obligations of its members.

2. PURPOSE AND OBJECTIVES OF BRICS-NCMSN

2.1. BRICS-NCMSN aims at:

- combining the efforts of leading institutions of the BRICS countries to produce highly qualified personnel in the fields of materials science and nanotechnology and to facilitate the academic exchange of students, teachers and scholars of the BRICS countries for research and training purposes;
- identifying the most promising areas of basic and applied research and development in the field of materials science and nanotechnology;
- enhancing the scientific and technical cooperation of the BRICS countries in the field of materials science and nanotechnology;
- promoting research leading to innovation-based economy, wealth generation and employment opportunities;
- promoting interactions between academia and private sectors and entrepreneurs.

2.2. The key objectives of BRICS-NCMSN are:

- to arrange for international cooperation between members of BRICS-NCMSN in education, research, and training activities in the field of materials science and nanotechnology;
- to identify high-priority areas of research in materials science and nanotechnology for joint international research projects and determine topics for supporting research and technologies in local domains;
- to raise financial and material resources from public and private funding sources for the development of research, technology and innovation in the field of materials science and nanotechnology in the form of grants for scientific and technological projects of research groups, universities and scientific institutions;
- to create a web portal with information on all available measurement facilities available for the use of members of NCMNS and to coordinate and facilitate such access (to) the members for scientific and technological projects approved by NCMNS;
- to organise international scientific and methodological conferences, workshops, and other activities for the promotion of science, technology and innovation;

- to conduct comparative analyses of the educational systems at various levels (bachelor, master, and doctoral programmes) in the fields of materials science and nanotechnology, and arrange educational exchange programmes in these fields;
- to facilitate joint training of doctoral students, including joint supervision, in these fields;
- to prepare internal documents of BRICS-NCMSN governance for:
  - the procedure of co-opting new members, such as new academic, private or governmental institutions;
  - the procedure of using the scientific equipment and research facilities of the BRICS-NCMSN;
  - the procedure of educational and research exchange programmes, associated with this initiative.

3. RIGHTS AND OBLIGATIONS OF BRICS-NCMSN

3.1. BRICS-NCMSN has the right to implement their statutory objectives as stipulated by the existing laws in order to:

- express and represent the interests of BRICS-NCMSN members in all bodies of the governments of the BRICS countries;
- participate in the activities of other organisations including governmental, international and non-governmental ones.

3.2. BRICS-NCMSN obligations are to:

- represent and protect the interests of the members of BRICS-NCMSN according to areas of activity under the Concept Paper;
- assist members of BRICS-NCMSN services that are consistent with its purpose and objectives under the Concept Paper.

4. RIGHTS AND OBLIGATIONS OF MEMBERS OF BRICS-NCMSN

4.1. Membership in BRICS-NCMSN is voluntary. Each member of BRICS-NCMSN conducts its affairs autonomously, subject to full independence and economic self-sufficiency by participating only in those joint programmes, events, business transactions and contacts on a multilateral and bilateral basis, which it considers useful and appropriate, unless otherwise stated by a special agreement.

4.2. BRICS-NCMSN is open to the entry of universities and research institutions that recognise its Concept Paper and share its purpose and objectives.

4.3. Members have the right, respecting the sovereignty/authority of each country:

- to use BRICS-NCMSN in the joint activities with universities and research institutions, international organisations, public and private institutions and companies of the BRICS countries;
- to use the information, scientific and educational materials, social and cultural resources and services of BRICS-NCMSN to expand and improve their operations;
- to create associations, subpanels and other entities within BRICS-NCMSN, enter into agreements that do not contravene the Concept Paper;
- to participate in scientific conferences, fairs, exhibitions, internships and other activities promoted by BRICS-NCMSN;
- to submit for consideration to the governing bodies of BRICS-NCMSN suggestions on matters within its activities and participate in the discussion of those issues;

- to finance joint projects and programmes adopted by BRICS-NCMSN;
- to withdraw from BRICS-NCMSN.

4.4. Members of BRICS-NCMSN undertake:

- to comply with the Concept Paper;
- to actively participate in the implementation of its mission, promote the cooperation of universities and research organisations within BRICS-NCMSN;
- to promptly transmit to BRICS-NCMSN any information required for its operation;
- to ensure the protection of information of any nature, the disclosure of which may harm BRICS-NCMSN and its members;
- to fulfil the resolutions of the General Meeting of the Centre.

4.5. Collaborating member institutions are required to have a memorandum of understanding (MOU) and/or equivalent between them in case of issues pertaining to intellectual property rights (IPR) are applicable.

5. GOVERNANCE OF BRICS-NCMSN

5.1. The highest governing body of BRICS-NCMSN is the General Meeting of the BRICS Working Group on MSNT and this Governing Body Meeting may coincide with the proposed yearly meeting of the Working Group. If such a meeting does not take place in any given year, the Governing Body Meeting will be scheduled independently in consultation with all members for the date, time and venue or the mode of the meeting (in-person or virtual).

5.2. The BRICS-NCMSN Council will consist of the National Coordinators and the Focal Points of the Working group, also known as the core group, (or their nominees) and will meet twice a year to review the activities of NCMSN and to discuss ways to strengthen such activities, avenues to generating additional funds, etc. These meetings may be held through virtual means. The Council will be chaired and co-chaired by the National Coordinators (or their nominees) of the Lead-Coordinator and the Co-Lead-Coordinator countries of this Working Group, namely Russia and India, respectively.

6. PROCEDURE AND CRITERIA FOR ACCEPTANCE OF NEW BRICS-NCMSN MEMBERS

6.1. Prospective member institutions must submit an application for membership to BRICS-NCMSN with an endorsement of the National Coordinator and through the appropriate office of the Focal Point in their respective countries. The recommendations of the National Coordinator for a specific institution will be based on the quality of publications, availability of research infrastructure, excellence of the academic staff and students and track record of translational research.

6.2 Respective BRICS countries are also encouraged to nominate potential institutions/organisations to become members and invite them to do so.

6.3. The decision of the admission-worthiness of the applying institution will be communicated to the BRICS-NCMSN office by the office of the Focal Point.

7. LEGAL AND FINANCIAL STATUS OF BRICS-NCMSN

BRICS-NCMSN does not have any tangible or intangible assets, financial resources, and does not have a legal liability.

8. DOCUMENTS OF BRICS-NCMSN

8.1. The following documents are stored at the location of the National offices of BRICS-NCMSN:

- Documents of BRICS-NCMSN as well as changes and amendments to them;
- Minutes of the General Meetings and other relevant documents stipulated by laws and other regulatory instruments of the BRICS countries, the Concept Paper, internal administrative documents, resolutions of the General Meetings and the Council of BRICS-NCMSN;
- Internal administrative documents of the National office.

8.2. The documents are drawn up in 5 (five) copies in English. All five versions of the documents have the equal validity for each of the Parties.

9. THE PROCEDURE FOR REORGANISATION AND LIQUIDATION OF BRICS-NCMSN

9.1. BRICS-NCMSN may be reorganised or liquidated by a resolution of the General Meeting.

9.2. Liquidation is performed by the liquidation commission appointed by the General Meeting. Since the appointment of the liquidation commission, it shall assume the authority to manage the affairs of BRICS-NCMSN.

9.3. The Liquidation Commission:

- finalises the current affairs of BRICS-NCMSN;
- publishes information on the liquidation of BRICS-NCMSN.

9.4. Upon termination of activities of BRICS-NCMSN, its documents having scientific and historical value as well as other documents designated for storage (orders, personal files, record cards etc. concerning the operations of the National offices) are transferred to the university's (organisation's) archives on the basis of which the National offices of BRICS-NCMSN were established.

10. FINAL PROVISIONS

10.1. Relationships that are not regulated by this Concept Paper shall be governed by the applicable laws of the BRICS countries as well as BRICS-NCMSN binding internal documents. This Concept Paper shall enter into force upon approval by the competent authority of BRICS STI Cooperation Framework.

10.2. The Concept Paper of BRICS-NCMSN may be supplemented and modified by the recommendation of the General Meeting and approval of the competent authority of the BRICS STI Cooperation framework.